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Foster D. Hinshaw

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HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

530 VIRGINIA ROAD

P.O. BOX 9133

CONCORD, MA 01742-9133

EXAMINER

PHAM, KHANH B

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/665,726	<b>Applicant(s)</b> HINSHAW ET AL.	
	<b>Examiner</b> Khanh B. Pham	<b>Art Unit</b> 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 21-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 21-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/1/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-5, 21-35** are rejected under 35 U.S.C. 102(b) as being anticipated by Hejlsberg et al. (US 6,151,602 B1), hereinafter “**Hejlsberg**”.

**As per claim 1**, Hejlsberg teaches a data engine (Fig. 1A) located in a programmable pipeline processor for processing non-field delineated, streaming, application level database records received from a mass storage device, the data engine comprising:

- “a data parser configured to recognize the record and field structure of the non-field delineated database records and parse non-field delineated database records into field-delineated data” at Col. 7 lines 3-60, Col. 8 lines 13-48, and Col. 21 lines 15-35;
- “filter logic configured to received the field delineated data from the data parser, and to filter the field delineated data by performing a field operation on the field delineated data” at Col.21 line 47 to Col. 22 line 25;
- “an output tuple generator configured to assemble filtered field delineated data into an output tuple” at Col.21 lines 25-35.

**As per claim 2**, Hejlsberg teaches the data engine of claim 1 wherein “the filter logic further comprises a programmable memory that serves as a substitution table for field delineated database record” at Col.21 lines 30-35 , and “wherein performing a field operation on the field delineated database records includes performing a field comparison on selected fields of the field delineated data” at Col. 21 lines 47-65.

**As per claim 3**, Hejlsberg teaches the data engine of claim 2, wherein “the substitute table includes a data string register” at Col. 21 lines 20-35.

**As per claim 4**, Hejlsberg teaches the data engine of claim 2, wherein “the substitute table includes a temporary register” at Col. 21 lines 20-35.

**As per claim 5**, Hejlsberg teaches the data engine of claim 2, wherein “the field comparison is a character field comparison” at Col. 21 lines 45-65.

**As per claim 21**, Hejlsberg teaches a method for processing non-field delineated streaming application level database records received in a programmable pipeline processor from a mass storage device (Fig. 1A) , the method comprising:

- “receiving the non-field delineated database record in a field buffer as an input data stream” at Col. 8 lines 13-48, and Col. 21 lines 15-35;
- “recognizing the record and field structure of the non-field delineated database records in the field buffer” at Col. 7 lines 30-60, Col. 21 lines 15-35;

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- “separating the input data stream into field delineated data in the field buffer under instruction from an external central processing unit” at Col. 19 lines 45-65;
- “filtering the field delineated data by sending field delineated data from the field buffer to at least one logic unit that performs at least one field operation on the field delineated data” at Col. 21 lines 35-65; and
- “assembling the filtered field delineated data into an output tuple” at Col. 21 lines 25-35.

**As per claim 22**, Hejlsberg teaches the data engine of claim 1, wherein “the output tuple assemble by the output tuple generator contains only selected data fields of the field delineated data” at Col. 21 lines 1-4.

**As per claim 23**, Hejlsberg teaches the data engine of claim 1, wherein “the filter logic is further configured to filter the field delineated data by flagging data for further processing” at Col. 21 lines 40-4 .

**As per claim 24**, Hejlsberg teaches the data engine of claim 1, further comprising “header storage configured to received header and control data of the field delineated data from the data parser and provide header data to the filter logic, wherein the filter logic is further configured to use header data to filter field delineated data” at Col. 8 lines 15-45.

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**As per claim 25**, Hejlsberg teaches the data engine of claim 1, further comprising "an ID processing module configured to received header and control data of the field delineated data, to identify the validity of field delineated data by processing an ID field in the header data , and to provide the identified validity to the tuple generator" at Col. 22 lines 15-25.

**As per claim 26**, Hejlsberg teaches the data engine of claim 25, wherein "the ID field store a transaction ID associated with the field delineated data" at Col. 22 lines 15-25.

**As per claim 27**, Hejlsberg teaches the data engine of claim 21, wherein "filtering further comprises providing a substitute table for field delineated data; and performing a field comparison on selected fields of the field delineated data" at Col. 21 lines 25-65.

**As per claim 28**, Hejlsberg teaches the method of claim 27, wherein "the substitute table includes a data-string register" at Col. 21 lines 25-65.

**As per claim 29**, Hejlsberg teaches the method of claim 27, wherein "the substitute table includes a temporary register" at Col. 21 lines 25-65.

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**As per claim 30**, Hejlsberg teaches the method of claim 27, wherein "the field comparison is a character field comparison" at Col. 21 lines 25-65 .

**As per claim 31**, Hejlsberg teaches the method of claim 21, wherein "the output tuple contains only selected data fields of the field delineated data" at Col. 21 lines 1-4.

**As per claim 32**, Hejlsberg teaches the method of claim 21, wherein "filtering the field delineated data comprises: flagging data for further processing" at Col. 21 lines 25-65.

**As per claim 33**, Hejlsberg teaches the method of claim 21 further comprising "using header storage data of the field delineated data to separate field delineated data" at Col. 8 lines 15-45 .

**As per claim 34**, Hejlsberg teaches the method of claim 21 further comprising "identifying the validity of field delineated data by processing an ID field in the header data of the field delineated data, and assembling the filtered data into the output tuple based on the validity of the field delineated data" at Col. 22 lines 15-25.

**As per claim 35**, Hejlsberg teaches the method of claim 34, wherein the ID field stores a transaction ID associated with the field delineated data" at Col. 22 lines 15-25

***Response to Arguments***

3. Applicant's arguments filed 4/1/2009 have been fully considered but they are not persuasive. The examiner respectfully traverses applicant's arguments.

In response to applicant's argument that "the data in Hejlsberg is not non-field delineated as required by the independent claims", the examiner respectfully submits that **neither applicant's nor the specification provide definition for "non-field delineated"** data, the examiner interprets "non-field delineated data" as data without field delineated. Therefore, if a reference does not teach "field delineated data", then the reference anticipates the claimed "non-field delineated data".

On the contrary, Hejlsberg teaches a streaming data packet, which is clearly a non-field delineated data packet, because data is process sequentially, one bit at a time until the "end of stream" is reached (See Col. 21). Applicant's specification at [0076] provides examples of field delineated data "such as tables, indices, and views". Hejlsberg requires unpacking data in the streaming data packet to reconstitute the database tables, therefore, the streaming data packet clearly does not contain field delineated data such as tables.

Applicant further argued that Hejlsberg fails to teaches "an output tuple generator configured to assemble filtered field delineated data into an output table". On the contrary, Hejlsberg teaches at Col.21 line 47 to Col. 22 line 25 the steps of performing field operation (i.e. "insert", "deleted", modify") on the field delineated data to produce "modified data record" (i.e. "output table").



In light of the foregoing arguments, the 35 U.S.C 102 rejection is hereby sustained.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh B. Pham/  
Primary Examiner  
Art Unit 2166

May 19, 2009